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Information and Updates on Current Issues

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STAYING THE COURSE: No Need for Fiscal Fright in Massachusetts

Massachusetts is in the midst of a fiscal crisis. After years of running huge surpluses, the state government is grappling with the problem of declining tax revenues, brought about by a weakening economy. The Governor wants to cut state spending by \$600 million. State legislative leaders want to postpone a tax cut approved overwhelmingly by the voters. Having entered the fifth month of the fiscal year, the state is still without a budget.

Are drastic measures necessary? Or is it possible for the state to weather the current slowdown with only minor adjustments in spending plans and without overriding the express wishes of the taxpayers? Is it possible also that, by overreacting with unneeded budget cuts and tax hikes, the state would worsen the very economic downturn that lies at the heart of its current problems?

The answer lies in the numbers. See Table 1. There we project state revenues for FY 2002-2006, with a view toward determining how much the state could spend over this period, relying only on current revenues and revenues available from its stabilization fund to finance expenditures. In constructing this table, we assume that planned tax decreases go into effect on schedule, there are no increases in cigarette taxes or other taxes, no use of tobacco settlement funds and no spending cuts.

Table 1.

State revenue, spending and surpluses (\$000, nominal)

FY	2000	2001	2002	2003	2004	2005	2006
Total Revenue	22,587,088	22,866,528	21,885,019	22,321,557	23,254,404	24,227,003	25,241,082
Total Expenditures	22,414,108	22,140,952	23,250,000	23,250,000	23,250,000	24,180,000	25,147,200
Surplus/Deficit			-1,364,981	-928,443			
	172,980	725,576			4,404	47,003	93,882
Stabilization Fund			2,295,451	930,470	2,026	5,550	43,152
	1,608,382	1,714,990					
Excess Funds^a	-		930,470	2,026	5,550	43,152	118,258
		2,295,451					

^aFunds going into the next year's stabilization fund. (See Appendix.)

Revenue projections for FY 2002-2003 are based on a combination of our own estimates and estimates from the Massachusetts Department of Revenue. We assume that revenues will grow by 4% annually after FY 2003. (See Appendix for further details.)

We assume that total expenditures will be \$23.25 billion in FY 2002, the generally accepted baseline number for the current fiscal year, representing a 5% increase over FY 2001 spending. We assume that the budget will be level funded through FY 2004 and thereafter grow at 4%, in line with expected growth in revenues.

As Table 1 shows, the state can meet the indicated expenditure targets by drawing only on current revenues and the stabilization fund¹. Even with the expected deficit of \$1.365 billion in FY 2002 and a deficit of almost \$1 billion

¹ See Appendix Section 3 for details.

in FY 2003, the state can continue to spend at current levels without exhausting the stabilization fund. After FY 2003, as the economy recovers, the budget moves back into surplus and the stabilization fund begins to grow in the process.

Not only can the state avoid cutting its budget but can also, taking the period FY 2001 to FY 2006 as a whole, increase spending in real, inflation adjusted dollars. Spending grows at an annual rate of 2.6% over this period, while prices are expected to grow by 2.5%.

What would the state gain by postponing the tax cut?

Last year, Massachusetts voters overwhelmingly chose to reduce the state income tax in stages to 5% by calendar year 2003. The rate is scheduled to be cut from its current level of 5.6% to 5.3% in CY 2002 and then to 5.0% in CY 2003. Senate Democrats are currently leading a campaign to delay this scheduled cut. They propose to push next year’s reduction off by one year in an effort to offset anticipated budget deficits.

Using our State Tax Analysis Modeling Program (STAMP), we found that, by postponing the tax cut in this way, the state stands to lose 32,855 jobs and \$1.312 billion in payrolls in calendar year 2002 that it would gain by staying the course. The state would incur similar losses in CY 2003. See Table 2. The job losses would occur as the tax cut scheduled for CY 2002 is postponed to 2003 and the tax cut scheduled for CY 2003 is postponed to 2004.²

Table 2.
Economic Effects of the Postponing the Tax Cut

Year	Tax Rates (%)		Change in Number of Workers	Change in Payroll (\$million, 2001)	Tax Revenue (\$ million, 2001)		
	Current Law	Democrat Leadership’s Proposal			Static Tax Revenue Change	Dynamic Tax Revenue Change	Net Tax Revenue Change
2002	5.30	5.60	-32,855	-1,312	476	-73	403
2003	5.00	5.30	-33,117	-1,340	505	-71	433

By postponing the tax cut, the state would increase revenue by \$403 million in CY 2002, taking into account the “dynamic” revenue loss attributable to the shrinkage in jobs and payrolls.³ The increase in revenue for CY 2003 would be \$433 million. Postponing the tax cut would, accordingly, permit the state to pay for about 1.8% of its FY 2003 expenditures at the cost of increasing the unemployment roles by 33,000 workers, just as the state enters the depths of the expected recession.

What are the benefits of cutting the tax to 5% on schedule?

We find that, if fully implemented in 2003, the tax cut will have created 84,131 new jobs and increased wages and salaries in the state by over \$3.4 billion. See Table 3.

Although tax revenue has fallen as a result of the declining tax rate and will continue to do so as the tax cut is fully implemented, the net effect on tax revenue is smaller than might be initially estimated. As our STAMP model shows, tax cuts have positive effects on state employment. Thus, with more people employed, the tax base is also increased by the cuts, resulting in an *increase* in revenues that offsets the decrease in revenues considered under a static analysis.

Table 3.
Economic Effects of the Ongoing Tax Cut

² The job and payroll losses associated with each year represent the losses in each that would take place in that year if the tax cut scheduled for that year were postponed. There would thus be 32,885 fewer jobs in 2002 and 33,117 fewer jobs in 2003 than there would have been if the tax cut had proceeded on schedule.

³The initial, or “static,” estimate of the revenue effect of postponing the tax cut considers only the impact of the tax cut on revenues, holding payrolls and other items making up the tax base constant. The “dynamic” effect equals the change in tax revenues brought about by the shrinkage in payrolls that results from postponing the tax cut.

Year	Tax Rates (%)		Change in Number of Workers	Change in Payroll (\$million, 2001)	Tax Revenue (\$ million, 2001)		
	Earlier Rates	Current Rates			Static Tax Revenue Change	Dynamic Tax Revenue Change	Net Tax Revenue Change
2000	5.85	5.85	-	-	-	-	-
2001	5.80	5.60	22,005	864	-323	48	-274
2002	5.75	5.30	49,849	1,991	-659	106	-553
2003	5.75	5.00	84,131	3,404	-1,097	170	-927
2004	5.75	5.00	84,804	3,464	-1,133	173	-960
2005	5.75	5.00	85,397	3,525	-1,145	176	-969

Conclusion: Stay the Course

Our analysis shows that the large surpluses accumulated in the 1990s make it possible for the state to manage the current revenue falloff with only minimum adjustments in its spending plans. Postponing the tax cut would be both unnecessary and unwise. There is no need to take an action that would destroy 33,000 jobs just as the state finds itself struggling to recover from a recession.

Even if spending cuts were necessary, however, the legislature might be advised to think twice before postponing the scheduled cuts in the income tax or increasing other taxes. Legislators and others who would postpone tax cuts approved by the voters are threatening to compromise the democratic process. The idea that the state cannot “afford” a tax cut presupposes that individual taxpayers can, on the other hand, afford to make sacrifices of their own. Better to adopt a policy of “shared sacrifice” than to go on blithely running up the state budget.

Appendix

The economic projections offered here are based on a formal model of the economy of Massachusetts, designed specifically to address the question of how tax changes affect economic activity. The State Tax Analysis Modeling Program (STAMPSM) was first developed for Massachusetts in 1994, and has since been refined and re-estimated almost annually.

At the core of STAMP are two simple premises. First, households maximize their utility, so they look at their after-tax earnings when deciding how much time to allocate to work and how much time to allocate to leisure. Second, firms maximize profits. To achieve this, they hire labor and capital, given the cost of both, as influenced by state taxes among other variables.

From these first principles we develop a structural model, which we then transform into a set of “reduced form” equations that may be estimated using annual data stretching back to 1970. There is one reduced form equation for each of the variables of interest – employment, the capital stock, the wage rate – and in each equation the independent variables include various policy levers, including the state income tax. The equation estimates serve as inputs to policy simulations, conducted to show how specific policy changes would affect employment, wages, capital formation and tax revenues.

Two steps are needed in order to simulate the effect of tax changes on the variables of interest. First we establish baseline values for the variables, projecting them out through 2005 (see Table 1A). Then we use our estimated reduced form equations to determine how changing the income tax rate (or some other tax) would affect the variables of interest.

For instance, from the estimates of the reduced form equations we know that when the state tax on labor income t_{sl} rises by one percentage point, employment falls by 3.05%. Then the change in employment, due to increasing the tax rate from 5.3% to 5.6% in 2002, would be:

$$NewL_{02} = L_{baseline_{02}} - [L_{baseline_{02}} \times \exp(-0.0305 \times \Delta t_{sl})] = 3.610m - [3.610m \times \exp(-0.0305 \times 0.30)] = 32,855$$

Table 1A
Baseline projections for 2000-2005

Period	Employment	Wage rate, \$ per annum	Capital stock, \$million
2000	3,484,289	38,425	237,632
2001	3,599,271	39,280	249,514
2002	3,610,069	41,160	256,999
2003	3,638,949	42,916	269,078
2004	3,668,061	44,619	280,918
2005	3,693,737	46,436	292,435

Notes:

- Employment growth is adjusted in accordance with growth rate in labor force projected by the New England Economic Project (NEEP).
- Wage rate projections are based on our employment estimates and NEEP's projected growth in payroll.
- The capital stock is assumed to grow in line with payrolls.

How will the proposed changes in the income tax rate affect state tax revenue? In answering this question it is necessary to distinguish between static and dynamic revenue effects.

The static revenue effect measures the change in tax revenue that results directly from the change in the tax rate, assuming that firms and households do not react to the tax change by altering their behavior. Thus the static revenue effect is measured by the change in the tax rate times the tax base. Most analyses of tax changes only compute the static revenue effects.

Tax changes also affect behavior. For example, our regression results show that an increase in the tax rate on labor income leads to a decrease in the number of workers and the total payroll. This in turn shrinks the tax base, leading to less tax revenue (the "dynamic" revenue effect), offsetting in part the static revenue effects.

Table 2A
Data Sources

FY	Tax Revenues	Nontax Revenues	Expenditures	Stabilization Fund
2000	Actual numbers as reported by the Comptroller's Office	Actual numbers as reported by the Comptroller's Office	Actual numbers as reported by the Comptroller's Office	Actual numbers as reported by the Comptroller's Office
2001	Actual numbers as reported by the Comptroller's Office	Actual numbers as reported by the Comptroller's Office	Actual numbers as reported by the Comptroller's Office	Actual numbers as reported by the Comptroller's Office
2002	Initial Estimates as reported by the Fiscal Affairs Division of the Dept. of Revenue	Initial Estimates as reported by the Fiscal Affairs Division of the Dept. of Revenue	BHI's Estimates	BHI's Projections
2003	Initial Estimates as reported by the Fiscal Affairs Division of the Dept. of Revenue	BHI's Projections	BHI's Projections	BHI's Projections
2004-2006	BHI's Projections	BHI's Projections	BHI's Projections	BHI's Projections

Assumptions used in making Revenue and Expenditure Forecast

1. Revenue

- a) Tax Revenue. Prior to FY 2004, we use actual and estimated numbers from the Massachusetts Department of Revenue. For FY 2004 through FY 2006, we grow tax revenue by 3.8%, which is the average annual growth

rate over the period FY1996-2003. When we compute tax revenue we also adjust for the transfers made to the MBTA fund, equal to 20% of sales tax revenue (excluding sales tax on meals). We find that on average from FY1996-2003 about 19% of all tax revenue is sales tax revenue and assume this to remain the same for subsequent years.

- b) Nontax Revenue. FY 2002 estimates are available from the Department of Revenue. Beginning FY 2003, we assume that nontax revenues grow at 5%, the average annual growth rate between FY 1996-2002

2. Expenditures

Expenditures for FY 2000-2001 are as reported by the Comptrollers office. The projection for FY 2002 is our estimate. From FY03 through FY04 expenditures remain the same as FY 2002 since we assume the budget is level funded. In FY 2005 and FY 2006, government spending annually grows by 4%.

3. Excess Funds and the Stabilization Fund

We assume that, starting in 2001, when the state runs a budget surplus, 80% of the surplus goes into next year's stabilization fund and becomes available to finance next year's expenditures. "Excess funds" consist of the end-of-year stabilization fund (rainy day fund) plus 80% of the current-year surplus (except for deficit years, when excess funds equal the stabilization fund minus the deficit). Thus, for example, the stabilization fund was estimated to be \$1.715 billion at the end of FY 2001, and the estimated FY 2001 surplus was \$725.6 million, of which \$579 million (or 80%) went into excess funds. Excess funds thus equaled \$2.295 billion. Beginning, FY 2002, each year's stabilization fund is set equal to the prior year's "excess funds."

This BHI FaxSheet was authored by David G. Tuerck, executive director of the Beacon Hill Institute and Chairman and Professor of Economics, Suffolk University, and by Tija Kurian, research assistant, Beacon Hill Institute.